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HAS THE UNIVERSE AN INTELLIGENT BACKGROUND AND PURPOSE?

The struggle of modern philosophy to make its peace with both orthodoxy and scepticism is one of the most amusing and at the same time one of the most irritating and exasperating incidents in the history of thought. Just when the issue between the mechanical and the spiritual theory of things becomes clearly defined in its evidential character, the philosopher becomes frightened at the consequences of his own scepticism and goes off to dally with the spiritual view which he had learned to question. There is no objection to one's changing his convictions and returning to the older point of view, but it is not easy for one to retain a positive belief in a process of intellectual jugglery between two antithetic views. Philosophy has no excuse for its existence but for its willingness and ability to present a clear and defensible message in reference to the meaning of human life and conduct. That is perhaps recognized by all parties, but none of them outside the orthodox camp has any intelligible system to defend. The orthodox type is clear and intelligible, whether it is true or not. It may not be right and it may not be supported by adequate evidence, but it is intelligible. But the agnostic who is trying to appropriate the language of the orthodox and at the same time to repudiate his ideas is simply invoking the accusation either of insincerity or of ignorance of his problem. This is a hard saying, of course, but in the present confused condition of philosophic thought none other is appropriate. It has been the function of philosophy previous to Kant to defend some positive, and usually a Christian view of the cosmos. But since Kant it has had no character but scepticism, while it has been unwilling to admit that it was missionless for the world.

The "problem of teleology" is nothing more or less than the question whether the course of the world is "rational" and intelligent, or perhaps better, whether it is moving toward a result which is desirable for the highest ideals of man. It implies an intelligent background, and hence no man can

discuss "teleology," in any accepted sense of that term beyond the Greek idea, without approaching the question of the existence of "God." If there is any "teleology" at all of the intelligible kind, it involves the assumption or assertion of the "Divine Existence," as a precondition of the purpose which "teleology" supposes and which is supposed to be in some way indicated as a fact. Of course it may be best not to use that precondition, but to show the actual existence of the purpose in the cosmic order, and so not to urge the case by a revival of worn-out controversies. But a matter of policy in conducting the discussion does not affect the actual implications which have to be recognized. Hence there is no escape from the admission that an assumed "teleology" in the cosmos means an intelligent process, unless "teleology" is taken to mean nothing more than a tendency toward a particular result either without any purpose or without the evidence of it. Such a "teleology" as this last, however, is only an appropriation of theistic language without the theism. It only deceives the theist and confuses the scientist.

One of the first things, it seems to me, for the student of this problem to learn is the radical difference between Greek and Christian "teleology." Greek "teleology" was nothing more than the tendency of a process toward a certain result, and this result might or might not be intended. Outside a few thinkers like Socrates and Anaxagoras, the philosophers avoided views that would imply anything more than an unconscious tendency toward a result rather than an end. The reaction against the earlier anthropomorphic conception of things and the discarding of *deus ex machina* views of the world left the Greek mind holding to a tendency in things minus ordinary intelligent purpose, and this tendency did not go beyond the present cosmic order. But Christianity came along with the view of an independent divine existence creating and governing the cosmos and assuring the immortality of human personality or consciousness, and making either the "glory" of God or the happiness of man, or both, the ultimate object of all things. The material universe in

this scheme was the means to an end, and not a self-existent thing as in Greek thought. All its movements and changes were directed by an intelligent and purposive cause. There was thus more than a mere tendency in the cosmos. The tendency was accompanied by design, or initiated by it and directed to a result which becomes an end by virtue of this conscious direction. "Teleology" thus means purpose and not mere tendency, though the actual outcome in both is the same.

We do not need any refinements of distinctions in the use of the word "cause" in the discussion of the problem. All hair-splitting talk about the reconciliation of "final" and "efficient causes" simply fails to see how such phrases came to be adopted. I do not believe that such an expression as "final cause" would ever have been adopted but for the equivocal import of the Greek term *αἰτιον* and the influence of tradition in its transliteration of meanings rather than the translation of them. Aristotle used the term *αἰτιον* for a meaning far wider than our word "cause," except as the influence of Greek thought has here and there left the traces of the latter's more comprehensive conception. Instance the conjunctive term "because" and the use of "cause" to denote a reason or ground of conviction. In his classification of "causes" Aristotle was not thinking of active energy alone, nor even of antecedent facts alone, but of any facts, coëxistent or antecedent, which made other facts in some way intelligible. There was nothing in common between his "causes" but this characteristic, and it has only been the consequence of studying the dynamic evolution of things exclusively with its interest in antecedent active agencies to explain the occurrence of events, that has transmuted the term "cause" into that of an "efficient" agent alone, and so given trouble in the discussion of "final causes" which are not necessarily "efficient" at all, though their necessary concomitant may be this very efficiency. The common characteristic of the four Aristotelian "causes" was logical, not real, and hence there is no reason for talking about either a conflict or a reconciliation between them. They are simply different things, though they may be synthetically connected

in various situations and separated in others. Recognizing this fact, what we have to do is to discuss the problem independently of the traditional associations of the word "cause" and of imaginary implication determined by meanings not applicable to the problem at hand.

Now as I refuse to recognize any form of identity but the logical in the four Aristotelian "causes," I equally refuse to confuse the discussion of "teleology" by any refined distinctions about its relation to "causality" of the efficient sort. I should treat "efficient" and "final causes" as different things, even though they be found always temporarily associated. To me "efficient cause" means a producing or originating agent, whether it be phenomenal or noumenal, and "final cause" a result aimed at consciously, not merely attained blindly as a consequence of a converging series of efficient agencies. With these conceptions in mind I think the problem of "teleology" can be intelligibly discussed, otherwise not.

I return, then, to the two fundamental conceptions of "teleology" which define the issue between two schools. One of them is the theistic, which represents "teleological" as implying conscious purpose looking to an end. The other represents it as referring to a result to which a number of other facts convergently point as a consequence. One of these, the former, implies the existence of mind as superintending the process and the other represents the process as a fact, whether mind be associated with it or not. The fact of such a process may be construed as an evidence of mind at the basis of it, but it is not assumed as a necessary concomitant of the system of causes converging toward the result. It construes them as at least unexpected conditions of results, and further investigation might reveal the presence of intelligence directing the process. But this view refuses to hastily conclude for this intelligence. It simply contents itself with remarking the necessity of the given coöperating causes in the production of the one combined result, showing that the fortuitousness of the effect is contingent upon the supposition of fortuity in the combination of causes.

Just in proportion to the doubt about fortuity in this combination of causes must be the argument for intelligence, as an associate of the process. But it is at this point that the whole crux of the problem and its difficulties appears. The theistic view had specified quite clearly the result which made its "teleology" intelligible; this new "teleology" does not make its end clear. Let us examine both of them.

The "old teleology" is said to be represented by the conceptions of Paley, and I think they may be taken as representative of certain general conceptions determined by the prevalent philosophy of the age. This was a mechanical view of the cosmos, a view as mechanical to the theism of the age as it was to materialism. The theism of that time and for many centuries had supposed matter to be a created thing, and that all its combinations were the resultant of its creator's action either directly or indirectly. It proceeded on the assumption of the intrinsic inertia of matter as a created substance, and so traced all its phenomena to the action of divine intervention, whether this action were occasional or continual. This point of view conceived matter merely as a means to an end and not as having any intrinsic power to direct causal action. Matter was a mechanical instrument in the hands of its creator, and not being able to organize any complex agencies to a common end or result, such consequences were easily and rationally referable to an extramaterial agent. "Teleology" in this system of thought implied both personality and agency transcendental to the things used as means, and so conceived the process as analogous to human action in its use of material force.

The materialism of the time, which contrived still to call its position mechanical, excluded intelligence from the cosmos, and accounted for phenomena by the fortuitous combination of elements endowed with motion, which was supposed to be eternal. It still adhered to the doctrine of inertia, and in that way appropriated mechanical assumptions and conceptions without any discovery of its weakness. Two important developments of thought, however, both modified and strengthened the materialistic view. The first was the

discovery of the indestructibility of matter and the conservation of energy. This discredited the old theory of creation both of matter and motion, so that the mechanical "teleology" of theism was completely eviscerated of its primary assumption. This victory was followed up by the supposition of "internal forces," as represented by the phenomena of chemistry and all phenomena indicating the internal action of matter affecting inorganic and organic compounds. This result modified the doctrine of inertia and still further limited the conception of mechanical "teleology" by assuming the existence of "internal forces" and excluding foreign intelligence from them. All that Evolution did was to organize and apply the principles involved in this point of view and to limit the necessity of an appeal to external intelligence. The indestructibility of matter and the conservation of energy eliminated the creationist theory, and the ideas of chemistry and "internal forces" eliminated the apparent necessity of concomitant intelligence in the explanation of phenomena, so that "teleology" was not regarded as expressing anything more than a process toward a result, which might either be calculable or intelligible from its conditions, but not necessarily intended by a foreign agent.

The same sceptical result was reached in another way and this was by the discovery of the evidential weakness of the "teleological" view prevalent for so long. Nothing is clearer than the old theistic scheme of the cosmos. It was perfectly intelligible and "rational." The creation of matter and the direction of its action, the arrangement of things in behalf of man and his development, and the assumption of immortality with its moral scheme of redemption, were perfectly intelligible conceptions, and as "rational" as any that one could desire. Even the golden paradise and the social and religious life of the future were no worse in conception than the ideal Greek state and the materialistic enthusiasm for science and art. All that the Christian did in his system was to extend the ideals of the present into the future for realization. They were quite as "rational" as the same objects pursued in the material life. But their defect was in

their lack of evidence. There was nothing that made them necessarily bad, or any worse than the same things cultivated in the incarnate life. But they were without evidential criteria, and hence, however desirable they might be, they wanted the credentials to make them credible. They might be true, but there were no adequate reasons for accepting them. Their truth and the acceptance of this truth gave an intelligible "teleology" to things, because such an outcome seemed "rational" and, in so far as it pointed to a moral scheme and ultimate human perfection and happiness, showed as "rational" a system as any utilitarian ethics could advocate. But the moment that the system lost its evidential character, though it retained its ideal "rationality," in so far as man was concerned, it was nothing for the theistic "teleology," which depends as much for its value upon its evidential as upon its explanatory character. But its explanatory power has no practical value if it cannot claim to be a fact.

We have seen that the "old teleology" based its claims partly upon the inertia of matter involving its inherent incapacity to organize complex results or to display intelligence, and partly upon the belief in a future life which gave rationality to an order in which human perfection and happiness were not fully realised until a discarnate existence could be attained. But this system lost its cogency for human belief for several reasons: (1) In default of evidence for immortality it had not the facts necessary to maintain the desirable rationality in the system in so far as end or result was concerned. (2) The indestructibility of matter and the conservation of energy dispensed with the necessity of creation by a transcendental agent and left unconscious matter as the only Absolute necessary for science. (3) The laws of chemical action and the possibility of artificial compounds by human experiment in which material action was due to "internal" and not divine action, at least as previously conceived, introduced the idea of immanent "forces" in nature, which set aside the transcendent "forces" of the theistic view, and as consciousness was not assumed to be a concomitant of their action, the "teleology" of the new point of view re-

turns to that of Greece and becomes a mere tendency toward a result of conditions inherent in the nature of matter, and not an intentional movement transcendently toward an end, at least in so far as the evidence is concerned. Such a "teleology" excludes a foreign intelligence, and all intelligence, unless this can be made a function of matter itself. To exclude intelligence from matter would be to use the term "teleology" to mean nothing more than the relation between conditions and result. All use of it to imply "means and end" would be a mere surreptitious appropriation of ideas not true in fact, and would only deceive the reader with associations and implications of a doctrine that is no longer held. It does not matter whether we call our "teleology" transcendent or immanent, it can mean only one of two things, namely, either intelligent aiming at an end or appropriate adjustment of complex conditions to the production of a result. The former is definitely theistic and the latter is agnostic, though it purloins interest and respectability by using the orthodox term "teleology," reserving the right to explain it away if orthodoxy claims the victory.

But what is this new "teleology"? I repeat that it does not matter whether it be called "immanent" or not. That is immaterial to the question, except as a means of excluding the *deus ex machina* conception, which after all is a bugbear only because it does not appear to be true, and not because it is intrinsically irrational. But it is certain that the assumptions of modern science favor an immanent "teleology" whether this be intelligent or blind, and I shall assume that this is the only defensible position, and simply press the question whether it implies a "rational" process, as the term ought to do if we are not equivocating or trying to curry favor with religious conceptions which the premises will not admit. I must insist upon keeping our conceptions clear at this point. I must know when the term "teleology" is used, whether it is to imply concomitant intelligence directing a movement or the resultant of complex conditions not naturally associated and in which intelligence is not clearly apparent, even if possibly present.

But what is it that supplies evidence of intelligence in the relation between causes and effect? The answer to this question is not so easy as it may seem. It would be easy to give a formula for detecting intelligence, but it would be liable to error in its application, unless it were truistic. Hence I shall not indulge in laying down rules that are dubious. I can only indicate one negative consideration which will serve as a precaution against hasty judgment. It is that a mere combination of unexpected causes is not a sufficient evidence of intelligent action. They must be accompanied by a result which is also "rational." Let me illustrate. Suppose the case of a boy throwing a stone against a wall. If I see the boy actually throw the stone I regard the phenomenon as purposive. That is, I suppose the throwing to have been intentional, directed by consciousness. The intelligence is inferred from the previously made assumptions that the boy is a conscious being, and that I am not accustomed to seeing inanimate objects thus start to move through the air. It is not the large combination of independent causes that influences my mind in such a case, but the primary knowledge of the nature of the initiating agent and my experience in such acts myself where I know the part played by consciousness. But if I saw the stone moving through the air in its course and did not see its initial motion, the intelligence of the act is not so apparent. I must know more than its motion to decide the case. The stone might have been impelled in various ways, such as the result of an explosion, glancing from a fall down a mountain, or even thrown by an automaton prearranged to throw objects. In this last case intelligence is assumed as causing the prearrangement, but not as directly causing the specific act as an immediate consequent of volition. I must know more than the mere motion to infer intelligence. The case of falling meteors illustrates the whole phenomenon, and no one suspects immediate intelligence there. The instance of the watch is only a little more complex one than the stone. It is our personal familiarity with man's mechanical inventions and the absence of such artificial conditions in natural creations that

lead us to suppose the watch a designed object. The watch is associated with known human intelligence, or it resembles such productions sufficiently to exclude any other interpretation of its nature, though this view would not be so certain if we knew that "nature" produced similar combinations of conditions for a single result, as it certainly does apparently in the organic world. But the primary fact in evidence of intelligence, when we do not previously know the nature of the agent most naturally associated with the phenomenon adjudged, is that we see the event initiated, that is, know its origin, and if this origin is an intelligent being we can be assured of some specific purpose, whether we know exactly what the purpose is or not. In all other cases the question of intelligence will be a more or less open one.

This brings us to the demarcation of the fields in which "teleological" action is possible or real and those fields in which it is either absent or indeterminate. The first of these is conscious human action. Here we have indubitable evidence of "teleology." None will dispute this fact. I do not care what theory of the will we adopt. I am not concerned in this supposition of human "teleology" with either free will or determinism. I shall make a present of his theory to the determinist, and yet insist upon the purposive nature of human actions, and hence a field in which "teleology" is indisputable. Neither do I care whether this "teleology" is immanent or transcendent. From the point of view of modern thought it would probably be regarded as immanent. But that is indifferent to the view here taken, which depends upon the introspective deliverance of consciousness that we actually intend certain ends or results. To that extent we must admit "teleological" action in the world. This conclusion can probably be extended to the whole of organic life. But it must be remarked that assured "teleological" action may not extend further, and will be doubtful in all inorganic phenomena in proportion to the strength of the assumption that matter is uncreated and is capable of initiating action under certain conditions.

Now the crux of the whole problem appears at this point

where we wish to know if "teleological" phenomena are evident outside of the actions of man and of organic beings. This problem is to know whether the actions and movements in the inorganic world are accompanied by purpose or not, whether that purpose be immanent or transcendent, whether it be consciously initiated by the subject of the action or the medium for its expression and realisation, as in the case of a machine. The old cosmology had no difficulty in making an intelligible claim at this point, because it assumed a creator and governor of things to account for all physical action. But the new point of view cannot claim this with the same impunity. Its whole philosophy is not only immanent, but assumes agencies to which it does not attribute intelligence of any kind in their actions and combinations. This position once admitted, there appears to be no limit to its application, and the laws of chemical action sustain its extension to almost anything.

Evolution apparently offers a difficulty to the materialistic opponent of "teleology" in that combination of causes which produces and maintains the various species of organic life and the definite complex order of inorganic phenomena. There are certainly appearances of design here. But these appearances have to meet with a twofold objection. The first is the fact of natural selection and the survival of the fittest. The force of this objection lies in the circumstances that the failures have disappeared so that the function of chance in the order is not superficially apparent. It seems intelligent because the evidence that it is not is absent. The "teleologist" will struggle in vain with that fact, unless he obtains evidence in some other consideration than the mere conjunction of causes to produce the results which appear to him so purposive.

One need not deny to the evolutionist the view that events are combined in a remarkable way to bring about a single result, but it is another thing to suppose the process purposive or intelligent, as has already been indicated in the definition of true "teleology." But grant that it is actually purposive, what is that specific purpose? It is all very fine

to admit that nature shows purpose, but what is that purpose? The "old teleology" had a very clear idea of it and in its doctrine of immortality had an end in view which recommended itself to rational beings, even when it represented that end in a somewhat materialistic light. But what is the "telos" of evolution? Is it anything that appeals effectively to men of high intelligence? We have only to look at the process and the outcome to see that it gives no scientific evidence of any other purpose, if purpose be admitted at all, than that of producing and sustaining for a period of time the forms of organic life. The chief thing for which organic life interests rational beings, namely, the development of consciousness and its ideals, seems to have no permanent place in the system. All that is apparent is the preservation of the race or type, and even this only on conditions. Moreover this is accomplished only at the expense of half, or more than half, of the individuals created. The survival of the fittest shows that nature fails to accomplish any clear purpose for the individual apart from the lucky strong. We express the purpose as the maintenance of the race, but as the race is nothing but a number of individuals the proper way to express it is to say that its purpose is the preservation of the strong and the destruction of the weak. This is the true statement of the facts, and it takes the whole ethical character out of the process, unless we either abandon our charity morals and imitate nature in the destruction of the weak, or obtain evidence of the continuance of life beyond death, in which the whole aspect of natural selection and the survival of the fittest would be wholly changed. But the spectacle of the struggle for existence as we see it and the assumption that we have no other possible view of it to take than the preservation of the strong and the destruction of the weak, only show us that the "teleology" so naïvely ascribed to the process conceals an ugly moral situation that men of high intelligence and morality cannot tolerate. Our moral nature does not idealise the preservation of any species unless the best characteristics of that species can have as much valuation placed on them

as on mere organisation. I think no intelligent person would value the production and maintenance even of the human race, unless he felt that mental and moral qualities and their enjoyment could also be equally sustained.

The theistic theory which affirms the immortality of the soul has a basis upon which to rest its "teleology." It may not be true, but it is certainly "rational," because its view of a future life only sets up as an end the continuance of conditions that are uniformly assumed to be rational in the present order. The survival of personality, the realisation of perfection and happiness, are only another expression for the ideals of pursuit in the present existence, and admitted by every school of ethics, and most of all by the utilitarian. Consciousness is valued in that system as above matter, whether organised or unorganised, and our estimate of reality measured by the extent to which it protects and aids the development of consciousness in all its higher forms of art, science, religion and society. But eliminate the consideration of a future life and you have nothing but the survival of the race or type before you as the "telos" of the cosmos, and however much design you may ascribe to that, it is not a very high result for intelligent and noble men to consider. It may be all that there is, but it is not very ethical, while what merits it may be supposed to have are terribly marred by the failure exhibited in the process of natural selection. But, as I have said, the spectacle of this struggle and selection would be greatly modified, if we could feel that it made no difference to the development of the consciousness which we estimate as the factor that gives existence its primary moral value. It would remove the disparity we must all feel between the estimate which nature places on matter in comparison with consciousness, and the estimate which moral ideals must place upon them. In our moral ideals we must evaluate consciousness more highly than mere matter, but the indestructibility of matter and the conservation of energy, without the survival of personality, mean that nature places a higher value on matter, at least from the standpoint of permanence, than it does on con-

sciousness, and if nature is to be our guide and example in this, we must reverse the ethics which evaluates the "rational" life the more highly. Materialism takes the true position in this, and unless you can show that nature is as careful of consciousness as it is of matter and its organisation, you are without a criterion for any other end than material organisation.

I am not claiming that the belief in a future life has any right to recognition as a fact. It may be neither a fact nor a possibility. It may be absurd to even think about it after what physical and physiological science have shown us. Besides, I think it true that the belief in it has been associated with so much "other worldliness" and false ideals that the moralist may well shrink from reinstating the illusions that have haunted its path. There can be no doubt that our duties lie right in our present environment and that nature seems to have done well, either to have hidden the destiny of man from him, or to have left it doubtful enough to force him to pay attention to his terrestrial duties instead of running after speculations that are fit only for the idle. Our concrete morals belong to the physical conditions in which we live. But all this has nothing to do with the problem of "teleology," which must consider the meaning of the cosmos, whether our ethics be limited to the incarnate life or extensible to an assumed discarnate existence. It is all very fine to talk stoically about the sacrifice of immortality when you think you cannot get it in any way, and to insist upon the Christian view of life without the Christian view of its meaning, but you cannot discuss any "teleology" in the system, beyond the creation of organic forms and their final absorption in a dead universe of matter, with all the real ethical values of it in terms of consciousness permanently lost. You must frankly face the fact that your "ideal" is a sheer mental abstraction, and that no intelligent man will prize it even as highly as stock-breeding. There is no use to give the cosmos any better character than it actually possesses. and if you leave out the belief that it cares less for personality and its opportunities to develop

than it does for inanimate matter, you have a sorry spectacle with which to move the average man to anything higher than a sensuous life. The survival of the fittest and the struggle for existence, as we see them egoistically carried out, are no models for our imitation. All our ethical progress has been made by putting limits to their operation, and trying to do something for the weak and unsuccessful. If the cosmos does not have a policy for the care of this class, so much the worse for it in our ethical systems. The successful may very naturally think well of the cosmos for their happiness and development, but the unsuccessful are within their rights and only apply the other side of the logic in the case when they complain that nature is not just; for their ideals are the same as those of the successful and it was only the gambler's luck that kept them out of their winnings. But any philosophy which does not provide for a rational solution of the accidents of life is not likely to find a very acceptable "teleology." All our altruistic ethics insist upon respect for the unsuccessful, pity for misfortune, and help for the downfallen, a course the direct opposite of what is palpable in the survival of the fittest, and if nature's only object is the preservation of the species in an organic form, our morality is against the law of nature, as it appears in its most obtrusive aspects. We can well understand failure and accident, and can tolerate the discrimination of nature against the weak in favor of the strong, if there is hope that the change for personal consciousness is only a change of environment and not annihilation. But the want of such an outcome leaves us no high purpose in the cosmos that is appreciable by any but stock-breeders. Hence a philosophy which does not have a definite word to say on survival of death is not one with any very rational "teleology." It may be right, and it may be the best that we should have no such belief, but we should not shuffle and prevaricate with terms that convey theistic impressions when examination shows us naked of their meaning. If we recognise that survival is a part of the system, let us give the evidence for our belief, and if we have no evidence, let us cling firmly and courage-

ously to agnosticism, and admit that we have no adequate grounds for supposing any result that will make things reasonable to us.

Kant saw the whole force of this in his moral argument, though I think he stated it wrongly. I do not think the morality of the system depends as much upon the proper articulation of virtue and happiness as it does upon the consistency of its course in the estimation of values in life. Kant had complicated his doctrine with the existing ideas of ethico-legal responsibility, and practically implied that duty and virtue had less reward in the present life than is probably the fact, and hence, like the theologian of the time, postponed the rectification of an imperfect order until another life. Now it is not so much the rectification of the present that is wanted, though any belief in survival is likely to take that expression of its meaning, but it is the necessity that nature shall be consistent with herself if it is to be regarded as rational. If we are to have any morality at all in our present life we have to estimate consciousness above a material order pure and simple. We have to reverence personality above impersonal force. Now unless nature gives the same permanence to personality that it gives to dead matter, in spite of all its changes, we can hardly accept any purpose in it as embodying the rationality which our ethics assigns to the preference for consciousness over a material order. Nature will appear rational if it provides for the conservation of consciousness as well as that of energy and matter, and it will not appear adequately rational until we are convinced that it does make this provision, and if we can rationally hope or believe it, we can well modify our feelings about the ugly spectacle of natural selection. Without it we only use abstractions about the race that are only euphemisms for the destruction of one individual for the benefit of another.

Another problem would also be on the way to solution if this survival could be rationally believed. It would be the existence of a personal Absolute. The survival of personality after death would suggest a unity in the system that

would make a larger personal ground of existence much easier of belief and proof, and in my opinion we can obtain no logical leverage for such a belief short of some conviction in favor of a soul and its survival. Our "teleology" would thus reach all the meaning that it has in its theistic conceptions, and it can have no range beyond what is perfectly compatible with materialism under any other way of looking at the problem. We could then talk freely enough of "the whole of nature shimmering in the radiance of the ethical ideal," but such a view is defenceless unless we can point to a result in nature that is more rational than the multiplication of organic forms. The rationality of the system depends, not merely upon the discovery of a purpose, but upon the discovery of a *rational* purpose. I agree that the process of evolution is at least superficially "teleological," but this appearance has two limitations which very much modify the right to lay any emphasis upon it. The first is the one that has already been mentioned, namely, the absence of the evidence for the amount of chance in the process. The second is the fact that the process is not always progress, but may be one of regress, or degress, if I may coin a term to indicate deterioration. Evolution is mainly a name for certain kinds of change, and instead of describing it in terms implying its ethical character, we have satisfied its demands when we have expressed it as increase or decrease of complexity, and not progress. But on the whole I agree that there has been progress of a kind, but that does not help a "teleological" theory in any respect, unless this progress conforms to the highest ideal which the ethical consciousness forms for itself in estimating the relative importance of the realities with which it has to deal. It may be that we cannot make good the claims of any such order in nature, but we cannot make our "teleology" either clear or very rational until we can sustain this point of view.

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